

CLAIM AMENDMENTS

1           1. (original) A cutting insert normally clamped to a  
2 disk- or bar-shaped tool body (30, 36), in particular for milling  
3 crankshafts and having a front face (10, 22) along at least one  
4 edge of which, and preferably along opposite edges of which, there  
5 is a respective convex edge face (11) having an arcuate edge (12)  
6 extending over an angle between 90° and 180° and serving as cutting  
7 edge,  
8 characterized in that  
9 either a straight cutting edge (14) generally perpendicular to the  
10 front face or at a maximum angle of 4° to a perpendicular to the  
11 front face or a concave edge (24) merges with the arcuate cutting  
12 edge(s) (12).

1           2. (original) The cutting insert according to claim 1,  
2 characterized in that a mounting hole for receiving a mounting  
3 screw extends through the front face (10, 22) so that the cutting  
4 insert (31) can be mounted laterally on the tool support (30).

1           3. (original) The cutting insert according to claim 1,  
2 characterized in that a mounting hole for receiving a mounting  
3 screw extends through a roof surface (35) so that the cutting  
4 insert (34) can be mounted via a mounting screw extending radially  
5 of the tool support (36).

1           4. (currently amended) The cutting insert according to  
2 ~~one of claims~~ claim 1 [[to 3]], characterized in that the arcuate  
3 cutting edge (12) has an edge bevel (17, 26) that extends at a  
4 bevel angle of 0° to 20°, preferably 10°, and/or that tapers at the  
5 front face to a width of 0 mm.

1           5. (currently amended) The cutting insert according to  
2 ~~one of claims~~ claim 1 [[to 4]], characterized in that the radius of  
3 curvature of the arcuate cutting edge (12), is 1.0 mm to 2.5 mm,  
4 preferably 1.4 mm.

1           6. (currently amended) The cutting insert according to  
2 ~~one of claims~~ claim 1 [[to 5]], characterized in that the radius of  
3 curvature of the concave edge (24) is smaller than the radius of  
4 curvature of the arcuate cutting edge (12), preferably 0.3 mm to  
5 1 mm, in particular 0.6 mm.

1           7. (currently amended) The cutting insert according to  
2 ~~one of claims~~ claim 1 [[to 6]], characterized in that extending  
3 from the concave edge (24) there is a straight cutting edge (25)  
4 for machining cylindrical surfaces, in particular journals of  
5 crankshafts.

1           8. (currently amended) The cutting insert according to  
2 ~~one of claims~~ claim 1 [[to 7]], characterized in that flanks (18,  
3 28) adjacent the arcuate cutting edge (12) and/or the straight  
4 cutting edge (25) are set at a positive cutting angle between 0°  
5 and 20°, preferably at a positive cutting angle of 10°.

1           9. (currently amended) The cutting insert according to  
2 ~~one of claims~~ claim 7 [[or 8]], characterized in that centrally  
3 extending perpendicular to the front face (22) there are planar  
4 side faces (23) that taper away from the front face (22),  
5 preferably with flanks (29) extending away from these side faces  
6 acting as chip-conducting steps for chips produced by the straight  
7 cutting edge (25).

1           10. (currently amended) A milling tool with a plurality  
2 of laterally clamped cutting inserts (31, 32) according to ~~one of~~  
3 ~~claims~~ claim 1 [[to 9]], where a cutting insert (32) with an  
4 arcuate edge (12) and a straight adjacent edge (14) alternates with  
5 a cutting insert (31) with an arcuate edge (12) and a concave  
6 adjacent edge (24) and a further straight edge (25).

1           11. (new) In combination with a support movable in a  
2     predetermined direction, a cutting insert having a body secured to  
3     the support and formed with:

4           a front face lying generally in a plane generally  
5     parallel to the direction;

6           an arcuate edge face having an outer end merging with the  
7     front face, an outer end, and defining between the inner and outer  
8     ends an arcuate cutting edge;

9           a side face directed forward in the direction and  
10    defining an outer cutting extending transversely of the front face  
11    from the outer end of the arcuate edge.

1           12. (new) The combination defined in claim 11 wherein  
2     the outer edge is generally straight and generally perpendicular to  
3     the front face.

1           13. (new) The combination defined in claim 12 wherein  
2     the outer edge extends at an angle of at most 4° to the front face.

1           14. (new) The combination defined in claim 11 wherein  
2     the outer edge has a concave portion merging with at the outer end  
3     with arcuate edge face and a straight outer portion extending  
4     inward away from the concave portion.

1           15. (new) The combination defined in claim 14 wherein  
2 the concave portion has a smaller radius of curvature than the  
3 arcuate cutting edge.

1           16. (new) The combination defined in claim 15 wherein  
2 the arcuate cutting edge has a radius of curvature between 1.0 m  
3 and 2.5 mm and the concave portion has a radius of curvature  
4 between 0.3 mm and 1 mm.

1           17. (new) The combination defined in claim 11 wherein  
2 the arcuate cutting edge has an edge bevel extending at an angle of  
3 0° to 20°.

1           18. (new) The combination defined in claim 11 wherein  
2 the arcuate cutting edge has a radius of curvature of between  
3 1.0 mm and 2.5 mm.

1           19. (new) The combination defined in claim 11 wherein  
2 the side face extends at a positive cutting angle between 0° and  
3 20°.